

State Health Advisory Supplement
COVID-19 Vaccines and Myocarditis
Coronavirus Disease 2019 Supplemental Advisory #12.10
Wyoming Department of Health
May 28, 2021

Summary

Since April 2021, increased cases of myocarditis and pericarditis have been reported in the United States after mRNA COVID-19 vaccination (Pfizer-BioNTech and Moderna), particularly in adolescents and young adults. There has not been a similar reporting pattern observed after receipt of the Johnson & Johnson COVID-19 vaccine. The Centers for Disease Control and Prevention (CDC) and its partners are investigating these rare reports of myocarditis and pericarditis following COVID-19 mRNA vaccination. At this time a causal link between vaccination and myocarditis/pericarditis has not been established.

The Wyoming Department of Health (WDH) and CDC continue to recommend COVID-19 vaccination for everyone 12 years and older given the risk of COVID-19 illness and related, possibly severe complications, such as long-term health problems, hospitalization, and even death.

Clinical Findings

Reported cases of myocarditis and pericarditis have occurred predominantly in male adolescents and young adults 16 years of age and older. Onset was typically within several days after mRNA COVID-19 vaccination, and cases have occurred more often after the second dose than the first dose. Reported symptoms include chest pain, shortness of breath, or palpitations.

In most cases, patients who presented for medical care have responded well to medications and rest and had prompt improvement of symptoms.

Recommendations for Providers

- WDH and CDC continue to recommend COVID-19 vaccination for everyone 12 years and older given the greater risk of other serious complications related to COVID-19, such as hospitalization, multisystem inflammatory syndrome in children (MIS-C), or death.
- Report all cases of myocarditis and pericarditis that occur after COVID-19 vaccination to the Vaccine Adverse Event Reporting System (VAERS)
(<https://vaers.hhs.gov/reportevent.html>)

- Consider myocarditis and pericarditis in adolescents or young adults with acute chest pain, shortness of breath, or palpitations. In this younger population, coronary events are less likely to be a source of these symptoms.
- Ask about prior COVID-19 vaccination if you identify these symptoms, as well as relevant other medical, travel, and social history.
- For initial evaluation, consider an ECG, troponin level, and inflammatory markers such as C-reactive protein and erythrocyte sedimentation rate. In the setting of normal ECG, troponin, and inflammatory markers, myocarditis or pericarditis are unlikely.
- For suspected cases, consider consultation with cardiology for assistance with cardiac evaluation and management. Evaluation and management may vary depending on the patient age, clinical presentation, potential causes, or practice preference of the provider.
- For follow-up of patients with myocarditis, consult the recommendations from the American Heart Association and the American College of Cardiology (<https://www.ahajournals.org/doi/10.1161/CIR.000000000000239>)
- It is important to rule out other potential causes of myocarditis and pericarditis. Consider consultation with infectious disease and/or rheumatology to assist in this evaluation.
 - Where available, evaluate for potential etiologies of myocarditis and pericarditis, particularly acute COVID-19 infection (e.g., PCR testing), prior SARS-CoV-2 infection (e.g., detection of SARS-CoV-2 nucleocapsid antibodies), and other viral etiologies (e.g., enterovirus PCR and comprehensive respiratory viral pathogen testing).

Detailed clinical considerations for COVID-19 vaccination from CDC can be found here: <https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html>

Specific information about myocarditis and pericarditis after COVID-19 vaccination can be here: <https://www.cdc.gov/vaccines/covid-19/clinical-considerations/myocarditis.html>

Information for patients and parents can be found here: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/>

CONTACT INFORMATION

For questions about the COVID-19 vaccines, providers should visit the WDH Immunization Unit website at

<https://health.wyo.gov/publichealth/immunization/wyoming-covid-19-vaccine-information/> or email WDH.immunization@wyo.gov.